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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

JUN 04 2004

Reply To
Attn Of: ECL-112

MEMORANDUM

SUBJECT: Request for Removal Action for Disposal of Evacuated Soil from the Everett Smelter Site, Everett, Snohomish County, Washington, at the Asarco Tacoma Smelter, Commencement Bay/Nearshore Tideflats Superfund Site, Tacoma, Washington

FROM: Kevin Rochlin
RPM

THROUGH: Chris Field, Unit Manager
Emergency Response Unit
Office of Environmental Cleanup

TO: Kathryn Davidson
Acting Director

Site ID: Everett Smelter: 10CK
Asarco Tacoma Smelter: 10W6

I. Purpose

The purpose of this Action Memorandum is to request and document approval of a time-critical removal action for the Everett Smelter Site, Everett, Snohomish County, Washington. For purposes of this document, the *Everett Smelter* refers to the former smelter and the *Everett Smelter Site* refers to the area subject to cleanup. The cleanup of the Everett Smelter Site will be implemented by Asarco under an enforcement order

issued by the Washington State Department of Ecology (Ecology), and pursuant to the Prospective Purchaser Consent Decree between the Everett Housing Authority and Ecology, under which Asarco Incorporated will perform the work.

This time-critical removal action addresses the transport and disposal of material excavated from the Everett Smelter Site. Approximately 75,000 cubic yards (cy) of soil contaminated with high concentrations of arsenic will be transported to, and disposed of on, the Asarco Tacoma Smelter Site (Asarco Tacoma Smelter), located in Tacoma, Washington. The Asarco Tacoma Smelter is part of the Commencement Bay, Nearshore/Tideflats (CB/NT) Superfund Site. The most contaminated material to be transported from the Everett Smelter Site will be disposed of in the Onsite Containment Facility at the Asarco Tacoma Smelter, an onsite landfill built in accordance with RCRA subtitle C requirements. The remaining contaminated soil will be disposed of under the site-wide cap at the Asarco Tacoma Smelter, a cap meeting the requirements of RCRA subtitle C, which will be placed over the entire Asarco Tacoma Smelter. Transport will take place under EPA and Ecology oversight. Disposal will take place under EPA oversight. As described later in this document, obtaining a cost-effective location for disposal of the contaminated material from the Everett Smelter Site is the only viable option to allow for cleanup of the Everett Smelter Site.

II. Everett Smelter Site Conditions and Background

This section generally addresses site conditions and background at the Everett Smelter Site. Site conditions and background for the Asarco Tacoma Smelter are discussed in EPA's Record of Decision for the Asarco Tacoma Smelter Facility issued in March 1995.

A. Everett Smelter Site Description

Conditions at the Everett Smelter (including the Everett Smelter Site), summarized here, are described in more detail in the following documents, prepared by Asarco and the Washington State Department of Ecology (Ecology):

Everett Smelter Site Remedial Investigation, Everett, Washington, Hydrometrics, Inc. and Kleinfelder, Inc., September 1995,

Smelter Area Investigation Report, Everett Smelter Site, Everett, Washington, ASARCO Incorporated, August 13, 1998,

Everett Smelter Site Final Cleanup Action Plan (FCAP) and Final Environmental Impact Statement for the Upland Area, Everett, Washington, Washington State Department of Ecology, November 19, 1999,

Interim Action Report (IAR), Everett Smelter Site, ASARCO Consulting, Inc., October 2002,

Pre-Excavation Source Material Verification Report, Fenced Area Cleanup, Everett Smelter Site, ASARCO Consulting, Inc., September 2003,

Final Design Report, Everett Smelter Site, ASARCO Consulting, Inc., March 29, 2004.

B. Physical Location/Site History

The Everett Smelter Site is located in northeast Everett, Snohomish County, Washington, and is contaminated by arsenic, lead, and other metals (Figure 1). The contamination was caused by emissions from the Everett Smelter when it was in operation between 1894 and 1912, and by material left behind when the smelter was demolished between 1912 and 1915. Asarco purchased the Everett Smelter in 1904 and assumed operations at that time. The property was sold in various parcels between 1915 and 1936, and homes were built on many of the parcels including the area housing the buildings used in smelter operations. The Washington Department of Transportation constructed SR 529 through the former Everett Smelter site in 1956.

The Everett Smelter Site contains the areas of the Everett Smelter owned by Asarco in the early 1900's when it operated the smelter, and properties currently owned by Asarco. The area contains a fenced area and parts of the surrounding neighborhood. The fenced area formerly housed the Everett Smelter's arsenic kitchen buildings (Figure 2). As described below, soil in this area contains high concentrations of arsenic. Asarco purchased the homes in this area, demolished them, and fenced the area to prevent further access.

1. Everett Smelter Site Characteristics

Studies and interim cleanup activities were performed at the Site under direction of Ecology from 1990 to 1999. A final cleanup action plan was issued in November 1999. During the Everett Smelter investigation, soil samples were collected at 60 locations to depths up to 39 feet. These samples were analyzed for total arsenic and lead and selected samples were also tested for leachability and toxicity.

The principal findings of the Everett Smelter area investigation with respect to the Everett Smelter Site were as follows:

Test pits identified intact floors and foundations of former Everett Smelter structures between one and four feet below current ground surface at several locations. In addition, an intact underground flue was identified in the northern portion of the fenced area. Debris from smelter demolition is present above the intact floors, within the footprints of former smelter structures, and in immediately adjacent areas.

The investigation confirmed that the Everett Smelter materials of primary interest are residual arsenic trioxide and flue dust. Arsenic trioxide was a product of the smelting process, containing approximately 760,000 mg/Kg of arsenic. Flue dust was a byproduct of smelting and roasting operations, containing approximately 25,000 mg/Kg of arsenic.

Residual arsenic trioxide and flue dust is present, usually mixed with demolition debris, within and adjacent to the footprints of structures where it was handled, processed or stored during smelter operation. The highest arsenic concentrations measured were in waste from smelter operations containing residual arsenic trioxide.

Transport of arsenic from residual smelter materials to underlying soils occurred at some locations indicating that these materials have the potential to be sources of arsenic to groundwater. In most cases the arsenic concentrations attenuated rapidly with depth.

Soil borings drilled around the southern boundary of the fenced area did not find Everett Smelter residuals outside the fence between Hawthorne Street and East Marine View Drive. Soil borings drilled inside and outside the fence along the western boundary of the fenced area indicate that Everett Smelter residuals are not present outside the fence along Hawthorne Street.

Materials with concentrations greater than 10,000 mg/Kg of arsenic are found within the fenced area. Additionally, a relatively small volume is found just outside the fenced area on the eastern boundary next to East Marine View Drive. The materials were primarily associated with residual flue dust and arsenic in Everett Smelter debris within and immediately adjacent to the footprints of former smelter flues, dust chambers and arsenic processing units. The materials are present over an approximate area of 1.4 acres at depths ranging from 1 to 10 feet. The aerial extent of this material is shown on Figure 3. The total volume of materials with arsenic concentrations greater than 10,000 mg/Kg is estimated to be approximately 10,000 to 15,000 cubic yards, with less than 1,000 cubic yards present outside the fenced area in the East Marine View Drive right-of-way.

Materials that can be designated as federal hazardous waste (materials above 3,000 mg/Kg of arsenic fail TCLP) are also found within the fenced area. In addition there is an area just outside the eastern fence along East Marine View Drive that also contains this material. The materials in the fenced area that are expected to have arsenic concentrations greater than 3,000 mg/Kg are present over an area of approximately 2.8 acres at depths ranging from 1 to 10 feet. The estimated aerial extent of these materials is shown on Figure 4. The total volume of materials with arsenic concentrations greater than 3,000 mg/Kg (including material greater than 10,000 mg/kg described above) is estimated to be approximately 20,000 to 25,000 cubic yards, with less than 600 cubic yards present outside the fenced area in the adjacent East Marine View Drive right-of-way.

Thirty-seven residential properties within the former Everett Smelter footprint have soil arsenic concentrations above 150 ppm, and as high as 3000 ppm.

As a comparison to these arsenic values above, Ecology currently considers 20 ppm of arsenic in soil as its cleanup standard for western Washington. This concentration correlates to a residential risk of approximately $5x10^{-5}$.

Synthetic Precipitation Leachate Procedure (SPLP) testing demonstrated that Everett Smelter materials containing residual arsenic trioxide or flue dust could be sources of arsenic under ambient leaching conditions. These materials are identified as the principal potential sources of arsenic to groundwater in the Everett Smelter area, although other localized factors are likely to be important such as material volume and infiltration rates.

Limited testing of surface soils was performed to evaluate potential sources of arsenic to surface water. Elevated arsenic levels in groundwater appear to be associated with Everett Smelter residual materials in the fenced area.

2. NPL Status

The Everett Smelter is not on the NPL, it is a state of Washington Model Toxics Control Act site. Ecology issued Enforcement Order No. 02TCPNR-4059 to Asarco in June 2002 and an earlier order in 1997, requiring cleanup of the most contaminated material within the Everett Smelter and Surrounding Properties site.

The Asarco Tacoma Smelter where material from the Everett Smelter will be disposed is part of the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site listed on EPA's National Priorities List in 1983.

C. Other Actions to Date

1. Previous Actions at the Everett Smelter

Ecology has directed Asarco to perform additional investigations and conduct other interim actions at the Everett Smelter. The primary cleanup actions taken at the Everett Smelter Site to-date are:

Asarco purchased all properties in the fenced area and demolished the buildings to the foundations,

The area has been fenced and interim surface water and soil cover controls implemented to prevent contact by the public and control releases from the site,

Ecology has conducted residential property remediation at two properties adjacent to the fenced area.

2. Current Actions at the Everett Smelter

An operations and maintenance (O&M) program has been ongoing for several years to control the potential for human exposure to contaminated materials in the Fenced Area.

Surface water contamination has been documented in storm water runoff and Asarco has implemented best management practices (BMPs) as required in Ecology Enforcement Order No. DE97TC-N119. The BMPs are designed to eliminate or substantially reduce the discharge of storm water from the former Everett Smelter that exceeds regulatory standards. These practices also control the potential for airborne releases of material from the Fenced Area and minimize the potential for direct human exposure to any persons working in this area or anybody not authorized to be in the Fenced Area.

There are no ongoing cleanup actions for the residential properties located outside the fenced area.

3. Previous Actions at the Asarco Tacoma Smelter

As described in EPA's 1995 Record of Decision for the Asarco Tacoma Smelter Facility, the areas impacted by the Asarco Tacoma Smelter include the 100-acre former smelter, the town of Ruston and parts of north Tacoma, and the contaminated sediments in the adjacent yacht basin and offshore of the site. Cleanup at the Asarco Tacoma Smelter began in 1993. Significant cleanup progress has been accomplished:

Most of the design has been completed and approved by EPA,

All buildings except fine ore bins building (FOB) have been demolished,

An on-site containment facility (OCF) has been constructed,

Approximately 50% of the worst site material (source area material) has been placed in the OCF,

65% of the shoreline has been armored to prevent erosion,

Stack Hill (the 6-acre area on which the smelter smoke stack was located) has been completely remediated.

4. Current Actions at the Asarco Tacoma Smelter

Work planned for 2004 includes demolition of the FOB, completion of the excavation of source areas and placement of this material into the OCF, and temporary capping of the OCF in preparation for placing the final site-wide cap.

D. State and Local Authorities' Role

1. State and local actions to date at the Everett Smelter

Ecology Enforcement Order No. 02TCPNR-4059 issued pursuant to the Everett Smelter Site Final Cleanup Action Plan, directs Asarco to remove and dispose of soils from within and adjacent to the fenced area that contain more than 3000 ppm of arsenic. Under the Order, and subject to the subsequent Agreed Judgment (No. 03-2-08502-1) issued by Snohomish County Superior Court on October 20, 2003, removal is required to be complete by October 30, 2004. The removal plan anticipates excavation and transportation of approximately 20,000 to 25,000 cubic yards of highly contaminated soil from the Everett Smelter and disposal with similar materials from the Asarco Tacoma Smelter in the Onsite Containment Facility at the Asarco Tacoma Smelter. In addition, Ecology has approved Asarco's proposal in the Interim Action Report to remove soil containing arsenic concentrations between 150 and 3000 ppm from the fenced area and adjacent residential yards, and has amended the Everett Smelter Site Final Cleanup Action Plan accordingly. The volume of this material is estimated to be approximately 50,000 cubic yards. This soil will be disposed as sub-grade backfill under the site-wide cap at the Asarco Tacoma Smelter.

2. Potential for continued State/local response

Ecology will provide oversight of the cleanup of the Everett Smelter Site,

including approval of the Final Design issued for construction (i.e., excavation of contaminated soil and loading it for transport to the Asarco Tacoma Smelter). EPA and Ecology will continue to coordinate throughout this action to ensure that the Everett Smelter Cleanup is consistent with the cleanup of the Asarco Tacoma Smelter Superfund Site. EPA has provided comments and clarifications on the design reports being developed to date to identify EPA requirements to ensure that the Everett Smelter cleanup will not impact the cleanup of the Asarco Tacoma Smelter.

As described in more detail in Section V of this Action Memorandum, transport and disposal of the material from the Everett Smelter at the Asarco Tacoma Smelter is the subject of this Action Memorandum. These activities will be subject to EPA's oversight under CERCLA's removal authorities.

III. Threats to Public Health or Welfare or the Environment, and Statutory and Regulatory Authorities

A. Threats to Public Health or Welfare

Conditions presently exist at the Everett Smelter Site that may present a threat to public health or welfare. Conditions at the Everett Smelter Site meet the criteria for a removal action as stated in the National Contingency Plan (NCP), 40 C.F.R 300.415(b)(2) as follows:

> Actual or potential exposure to nearby human populations, animal, or the food chain from hazardous substances or pollutants or contaminants.

Actual or potential exposures from hazardous substances are documented in Ecology's Everett Smelter Site Final Cleanup Action Plan for the Everett Smelter. Within the fenced area, the primary contaminants, arsenic and lead, are present in soil at the surface and shallow depths with highly elevated concentrations (e.g., typically 10,000 - 30,000 ppm arsenic). The Everett Smelter Site is located in an urban residential neighborhood; the Fenced Area limits access to the areas of highest soil concentration, but there is still the potential for contact by trespassers, and animals in the area. The Everett Smelter Site contains heavily contaminated material (i.e., hazardous waste) that must be removed from the Everett Smelter Site to eliminate the potential for any further risk to human health or the environment.

Surrounding the fenced area, residential properties within the footprint of the Everett Smelter have surface/near surface arsenic concentrations up to 3000 ppm. There are currently no physical controls on these properties to prevent contact with the contaminated soil.

B. Threats to the Environment

Conditions presently exist at the Everett Smelter Site that may present a threat to the environment. Conditions at the Everett Smelter Site meet the criteria for a removal action as stated in the National Contingency Plan (NCP), 40 C.F.R. Section

300.415(b)(2) as follows:

> Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

As the Everett Smelter Site is in an urban setting, the threats to endangered species or other critical habitats are not present. The Everett Smelter Site does contribute contaminants to groundwater and surface water that discharge to the Snohomish River and nearby estuary (where endangered species and critical habitat exist) as they flows into Puget Sound.

IV. Endangerment Assessment

Actual or threatened releases of hazardous substances from the Everett Smelter Site may present an imminent and substantial endangerment to the public health, or welfare, or the environment.

V. Proposed Actions and Estimated Costs

A. Proposed Actions

This removal action involves combining soil contaminated by the historic activities of two Asarco owned smelters: the Everett Smelter Site (a site being remediated under the Washington State Model Toxics Control Act and CERCLA removal authority) and the Asarco Tacoma Smelter (a CERCLA NPL site). Waste from the Everett Smelter Site will be transported to and disposed at the Asarco Tacoma Smelter.

This action allows for the complete remediation of the Everett Smelter Site. Other surrounding contaminated areas are not included in the cleanup. The Everett Smelter Site cleanup will result in the removal/isolation of contaminated soil from the environment so that it will no longer pose a risk to public health and the environment. This removal action will have minimal impact on the ongoing remediation of the Asarco Tacoma Smelter.

Taking this action is the only way that cleanup of the Everett Smelter Site can occur in a timely manner. By disposing the material at the Asarco Tacoma Smelter the cleanup realizes a savings of more than $4 million compared to excavation and offsite disposal at a hazardous waste landfill. The cleanup is being paid for with money from the Asarco Trust Fund (money from a national settlement with Asarco which currently pays for Asarco environmental cleanups), money that Asarco is realizing from the sale of the remediated property, and money from a state grant. However, these funding sources are not sufficient to cover any other disposal option. Without this removal action, which covers transport of contaminated material from the Everett Smelter and disposal at the Asarco Tacoma Smelter, the cleanup of the Everett Smelter Site could not occur in the foreseeable future. This action needs to occur this year to realize the savings as the winter cap placed this year on the OCF at the Asarco Tacoma Smelter will be part of the permanent cap, and thus the OCF will not be available for disposal after this construction season.

This action allows the disposal of material from the Everett Smelter Site at the Asarco Tacoma Smelter in accordance with Section 104(d)(4) of CERCLA (42 U.S.C. 9604(d)(4)). Section 104(d)(4) of CERCLA states that "where two or more noncontiguous facilities are reasonably related on the basis of geography, or on the basis of the threat, or potential threat to the public health or welfare or the environment, the President may, in his discretion, treat these related facilities as one for purposes of this section." The Everett Smelter is currently not a CERCLA site. This Action Memorandum for disposal of soils provides the regulatory basis for the Everett Smelter Site to be a facility under CERCLA, allowing disposal to occur under Section 104(d)(4) of CERCLA. The excavated soil from the Everett Smelter Site contains the same contaminants at similar concentrations to the material currently being disposed of at the Asarco Tacoma Smelter. Disposal at the Asarco Tacoma Smelter adds approximately 10% to the total volume of materials disposed on the Asarco Tacoma Smelter and does not have an environmental impact on the Asarco Tacoma Smelter remediation. EPA's authority to combine waste from non-contiguous facilities will ensure that human health threats and ecological risks from the Everett Smelter Site are addressed quickly. With approval of this Action Memorandum, CERCLA and the NCP will apply to disposal of excavated material from the Everett Smelter Site at the Asarco Tacoma Smelter. The disposal location is available in time to allow cleanup to proceed this year.

EPA has set the following requirements on bringing material to the Asarco Tacoma Smelter:

> All of the source area material on the Asarco Tacoma Smelter must be in the OCF prior to placement of any soil from the Everett Smelter Site.
>
> Everett source material may not be stockpiled on the Asarco Tacoma Smelter. It must be brought to Tacoma and placed into the OCF. Once the OCF is full, no additional source material may be disposed of on the Asarco Tacoma Smelter. If there is additional source material, it would have to be disposed of in a hazardous waste landfill.

These requirements will ensure that the Everett Smelter Site soil does not impact the cleanup at the Asarco Tacoma Smelter. Specifically, the following actions will occur:

1. Description of the Cleanup Action

Fenced Area actions under the direction of Ecology:

Excavate soil and debris greater than 3000 ppm arsenic (source material) from the Everett Smelter site. Transport soil by barge under EPA oversight to the Asarco Tacoma Smelter for disposal in the Onsite Containment Facility. Transport contaminated debris to an offsite landfill for disposal. Remove the remaining soil greater than 150 ppm arsenic (residential material), and transport via barge under EPA oversight to the Asarco Tacoma Smelter. This material will be used as sub-grade backfill and covered by the site-wide cap. Backfill and grade the fenced area with clean material following remediation and proceed with redevelopment of the property.

Residential Area actions under the direction of Ecology:

Remove soil greater than 150 ppm arsenic (residential material) from up to 37 properties surrounding the Fenced Area and install residential soil caps per the Everett Smelter Site Final Cleanup Action Plan. Transport material via barge to the Asarco Tacoma Smelter.

Fenced Area actions covered by this time-critical removal action:

Transport material via barge to the Asarco Tacoma Smelter (this activity will be overseen by Ecology and EPA). Disposal of the source area soils in the Onsite Containment Facility (OCF). Dispose of the residential material under the site-wide cap.

Residential Area actions covered by this time-critical removal action:

Transport contaminated material via barge to the Asarco Tacoma Smelter (this activity will be overseen by Ecology and EPA). Dispose of the residential material under the site-wide cap at the Asarco Tacoma Smelter.

This removal action covers transport and disposal of the contaminated material from the Everett Smelter Site to the Asarco Tacoma Smelter. Providing a disposal location for the material allows the cleanup to occur this year. The current estimate is that the OCF can take approximately 30,000 cubic yards of material. Once the OCF is filled, no additional source material from the Everett Smelter can be disposed of on the Asarco Tacoma Smelter.

2. Contribution to remedial performance

The cleanup actions described in this document are the final cleanup plans for the Everett Smelter Site. Additional contaminated areas in the Everett Smelter vicinity resulting from Everett Smelter emissions will be addressed under separate actions. The current cleanup actions will leave the site at 150 ppm arsenic. The Everett Smelter Site will then be backfilled with 2 feet of clean soil or other cover (such as building foundations that are deemed suitable by Ecology and then redeveloped.) This removal action allows for the disposal of the contaminated material excavated from the Everett Smelter Site at the Asarco Tacoma Smelter. Providing this disposal option allows the cleanup to occur.

Disposal of the material from the Everett Smelter Site at the Asarco Tacoma Smelter will have minimal impact on the remediation of the Asarco Tacoma Smelter. Prior to placement of material from the Everett Smelter Site in the OCF, all source area material from the Asarco Tacoma Smelter must already be placed so the Asarco Tacoma Smelter cleanup will not be impacted by lack of disposal space. The Everett Smelter Site source material will be placed this year and will not impact final OCF capping planned for the 2005 construction season. The additional residential material from the Everett Smelter will reduce the need for additional backfill material required to meet design grades at the Asarco Tacoma Smelter.

3. Description of alternative technologies

Alternative technologies were not considered for this action.

4. EE/CA

Because less than six (6) months exist to plan and initiate the disposal of excavated material from the Everett Smelter, a time-critical removal action is being taken by EPA pursuant to this Action Memorandum. Due to the time sensitivity of the construction sequencing for this project, an EE/CA has not been prepared, nor is one required for time-critical removal actions. Equivalent information exists, however, in investigation and decision documents that were relied upon in preparing this Action Memorandum including the Interim Action Report and Final Design Report for the Everett Smelter Site.

As part of its cleanup requirements, Ecology followed the necessary public notification process during the preparation of the Everett Smelter Site Final Cleanup Action Plan and prior to approval of the Interim Action Report. Ecology will also commence a public notice and comment process for the consent decree it plans to enter into with the Everett Housing Authority (EHA) in anticipation of the EHA's purchase of Asarco's property as part of the overall cleanup and redevelopment plan.

5. ARARs

ARARs for the Everett Smelter Site are evaluated in Chapter 3 — Regulatory Requirements of the Everett Smelter Site Final Cleanup Action Plan and Section 1.1 of the Interim Action Report. All ARARs related to the project, including transport of excavated material, will be implemented under the provisions of the Final Design Report for the Everett Smelter Site and associated consent decree and/or requirements of Ecology's Enforcement Order.

Only ARARs specific to transport to and disposal of Everett Smelter Site material at the Asarco Tacoma Smelter are being addressed under this Action Memorandum.

At the Asarco Tacoma Smelter, waste placed into the Onsite Containment Facility is being consolidated within the area of contamination. Therefore, the material does not have to meet the Land Disposal Regulations (40 C.S.R. 268) for RCRA characteristic waste. Soil from the Everett Smelter Site brought to the Asarco Tacoma Smelter is not within the area of contamination, and thus must meet the treatment standards of 40 C.F.R. 268.49, which set Universal Treatment Standards (UTS). Within the UTS are Alternative Treatment Standards for soil, which require soil to be treated to meet a 90% reduction (as measured by leach testing) in constituent concentrations, but not more than 10 times the UTS for that constituent. Everett Smelter Site "yard soils" are not RCRA characteristic waste. However, the source area materials have high enough arsenic concentrations to be RCRA characteristic wastes. Thus, Everett source area soil either must not exceed 10 times the UTS, or must be treated prior to being disposed in the OCF.

6. Project Schedule

The project schedule mandated under the Ecology Order is listed below.

Submit Engineering Design Report to Ecology	January 30, 2004
Submit associated planning documents to City of Everett	January 30, 2004
Procure Contractor	February 27, 2004
Approval of Final Design by Ecology	March 31, 2004
Approval of planning documents by City of Everett	April 30, 2004
Contractor Mobilization On-site	June 1, 2004
Substantial completion per Enforcement Order	August 20, 2004
Final Completion per Enforcement Order	October 31, 2004
Submit Draft As-Built Report to Ecology	December 31, 2004
Submit Final As-Built Report to Ecology	30 days after receipt of Ecology comments

Material will begin to be excavated in mid-June and will continue through mid-September, 2004. Material with arsenic concentrations above 3,000 ppm must be removed from the Everett site by August 20, 2004.

Yard cleanup, outside the fenced area will be conducted between June 1st and October 30th, 2004.

7. Estimated Costs

The total cost for the cleanup of the Everett Smelter Site is estimated to be $5.6 million. The cost for source area excavation under the Ecology Enforcement Order is estimated to be $3.1 million. The estimated cost for residential soils (i.e., soil with arsenic concentrations less than 3,000 ppm but more than 150 ppm), both inside and adjacent to the fenced area, is $2.5 million. These costs include the cost of disposal at the Asarco Tacoma Smelter. The cost for transport of the material from the Everett Smelter Site and disposal at the Asarco Tacoma Smelter is $1.6 million (included in the above costs).

The cost differentials for offsite disposal at the Asarco Tacoma Smelter as opposed to an offsite hazardous waste landfill are shown in the table below.

Disposal Cost using Tacoma	**Disposal Cost for offsite landfill**	**Cost Savings Achieved**
$1,621,399	$5,676,793	$4,055,394

VI. Expected Change in the Situation Should Action Be Delayed or Not Taken

Failure to allow disposal of material from the Everett Smelter Site at the Asarco Tacoma Smelter will keep the Everett Smelter Site cleanup from occurring in the foreseeable future. The additional $4 million that would be required for offsite disposal in a hazardous waste landfill is not available. This year may be the last year that the landfill on the Tacoma Smelter is available, as it is scheduled for closure in 2005. Therefore, the cleanup of the Everett Smelter Site may be precluded or significantly delayed for years causing the potential for human health and environmental exposure to the contaminants at the Everett Smelter Site.

VII. Outstanding Policy Issues

Generally, local governments are supportive of this action. Once cleanup is completed, the Everett Housing Authority will be in a position to pursue further development of a $20 million housing development, with needed lower income housing.

The Washington State Department of Ecology has requested that EPA provide its support to their actions in order to allow the cleanup to occur. This request was made in an April 22, 2004, letter dated from Linda Hoffman, Director of Ecology to John Iani, Regional Administrator, which is part of the Administrative Record for this removal action and provided as Appendix A to this Action Memorandum.

EPA has provided the public and local governments of Tacoma and Ruston, Washington, ample information on these activities. The public was given an opportunity to hear about the proposal and provide comments at a meeting held in January 2003. EPA held two additional public meetings on March 30, 2004. EPA also briefed government officials in Ruston and Tacoma including briefing the Tacoma Mayor and City Council on April 13, 2004. The public is generally supportive of, and local officials support this action.

Bringing waste from the Everett Smelter Site to the Asarco Tacoma Smelter for disposal has garnered substantia media attention. There have been numerous reports on these activities in the local press including favorable editorials in the Tacoma News Tribune.

VIII. Enforcement

Cleanup of the Everett Smelter Site is being conducted pursuant to Ecology's Enforcement Order and associated Agreed Judgment to Asarco, and the Prospective Purchaser Consent Decrees between the Everett Housing Authority and Ecology, under which Asarco will perform the work. The cleanup is not part of this removal action. No federal funds are being expended for the cleanup.

Under this Action Memorandum, EPA oversight will be provided for transport to and disposal of material at the Asarco Tacoma Smelter. Oversight of the other elements will be done by Ecology.

IX. Recommendation

This decision document represents the selected removal action for transport to and disposal of contaminated material from the Everett Smelter Site, located in Everett Washington, to the Asarco Smelter Site in Ruston and Tacoma Washington, and was developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based on the administrative record for the time-critical removal action.

Conditions at the site meet the NCP, 40 C.F.R. 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed time-critical removal action. The total project ceiling, if approved, will be $1.6 million (the cost of the shipping and disposal of the contaminated material at the Asarco Tacoma Smelter.) This is being funded by Asarco and the Everett Housing Authority. The only federal funds for this action will be for oversight at a cost of approximately $25,000.

APPROVED	DISAPPROVED
Kathryn M Davidson	_____
Kathryn Davidson, Acting Director	Kathryn Davidson, Acting Director
Environmental Cleanup Office	Environmental Cleanup Office
Date: June 4, 2004	Date: _____

Figures

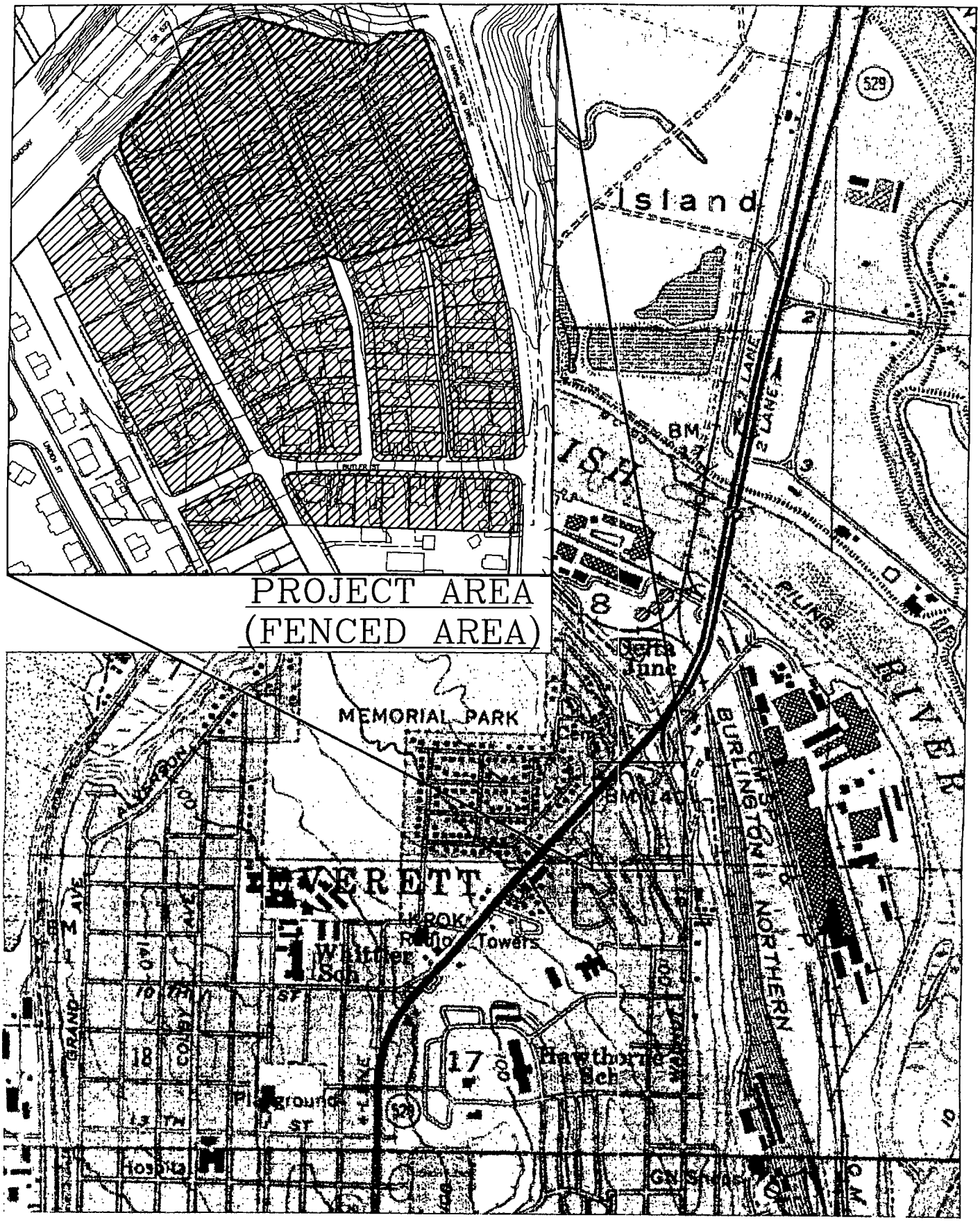


Figure 1

Project Area

LEGEND

- ASARCO OWNED – DEMOLISHED SUPERSTRUCTURE IN FENCED AREA
- HOUSES PREVIOUSLY REMEDIATED BY ECOLOGY
- NON ASARCO–OWNED HOUSES TO BE REMEDIATED
- ASARCO HOUSES TO BE REMEDIATED
- APPROXIMATE LOCATION OF HISTORICALY OWNED ASARCO PROPERTY BOUNDARY
- SECURITY FENCE
- RIGHT OF WAY TO BE REMEDIATED

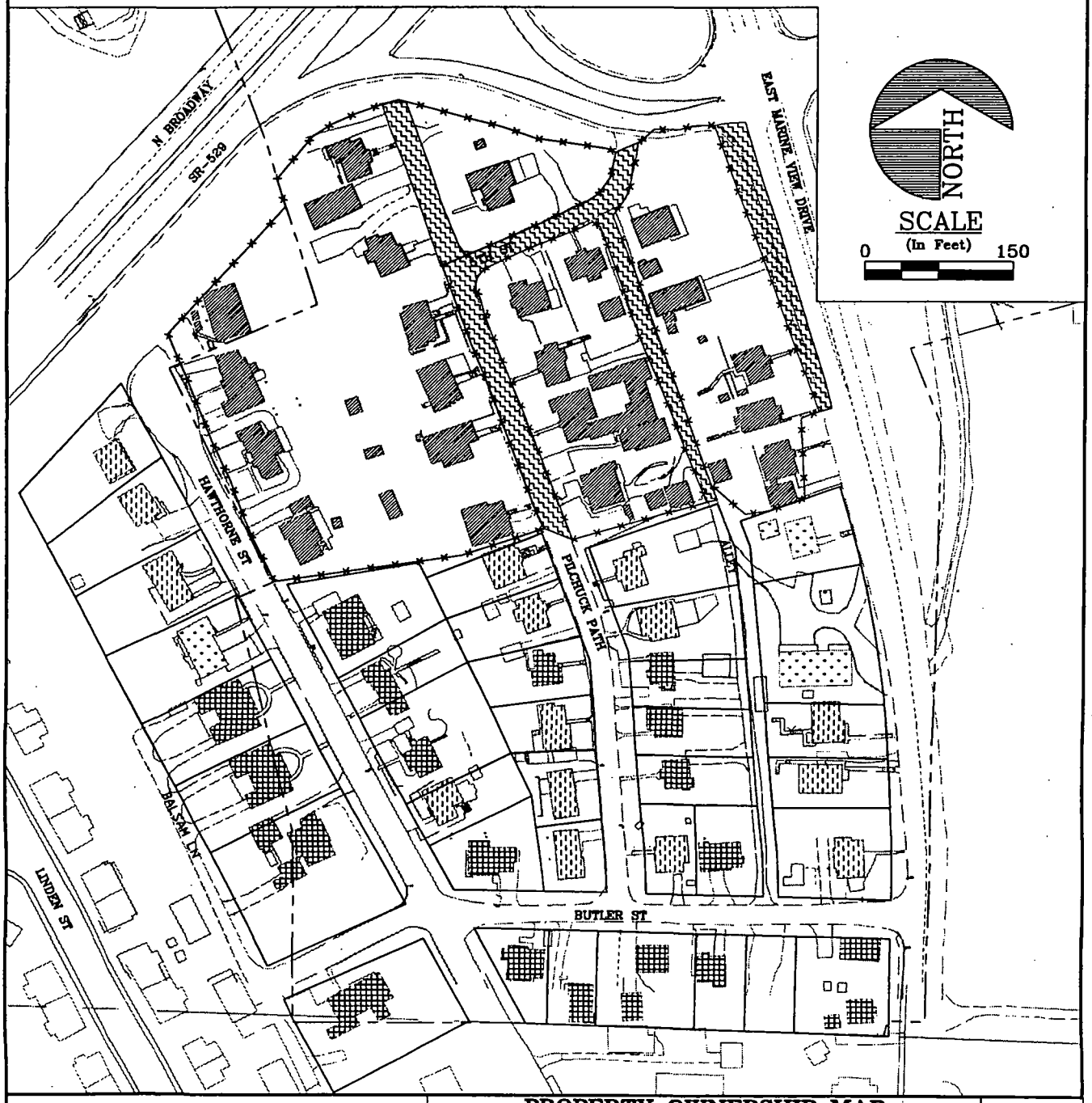


Figure 2

PROPERTY OWNERSHIP MAP
ASARCO INCORPORATED
EVERETT, WASHINGTON
04/09/04

UPDATE TIME:
000\0000\065\0000\TAC\ \I:\STORAGE\

Hydrometrics, Inc.®

LEGEND

- — · — APPROXIMATE LOCATION OF HISTORICAL SMELTER FOOTPRINT
- ×—×—× SECURITY FENCE
- (shaded) ESTIMATED EXTENT OF MATERIAL WITH ARSENIC CONCENTRATIONS GREATER THAN 10000 mg/kg

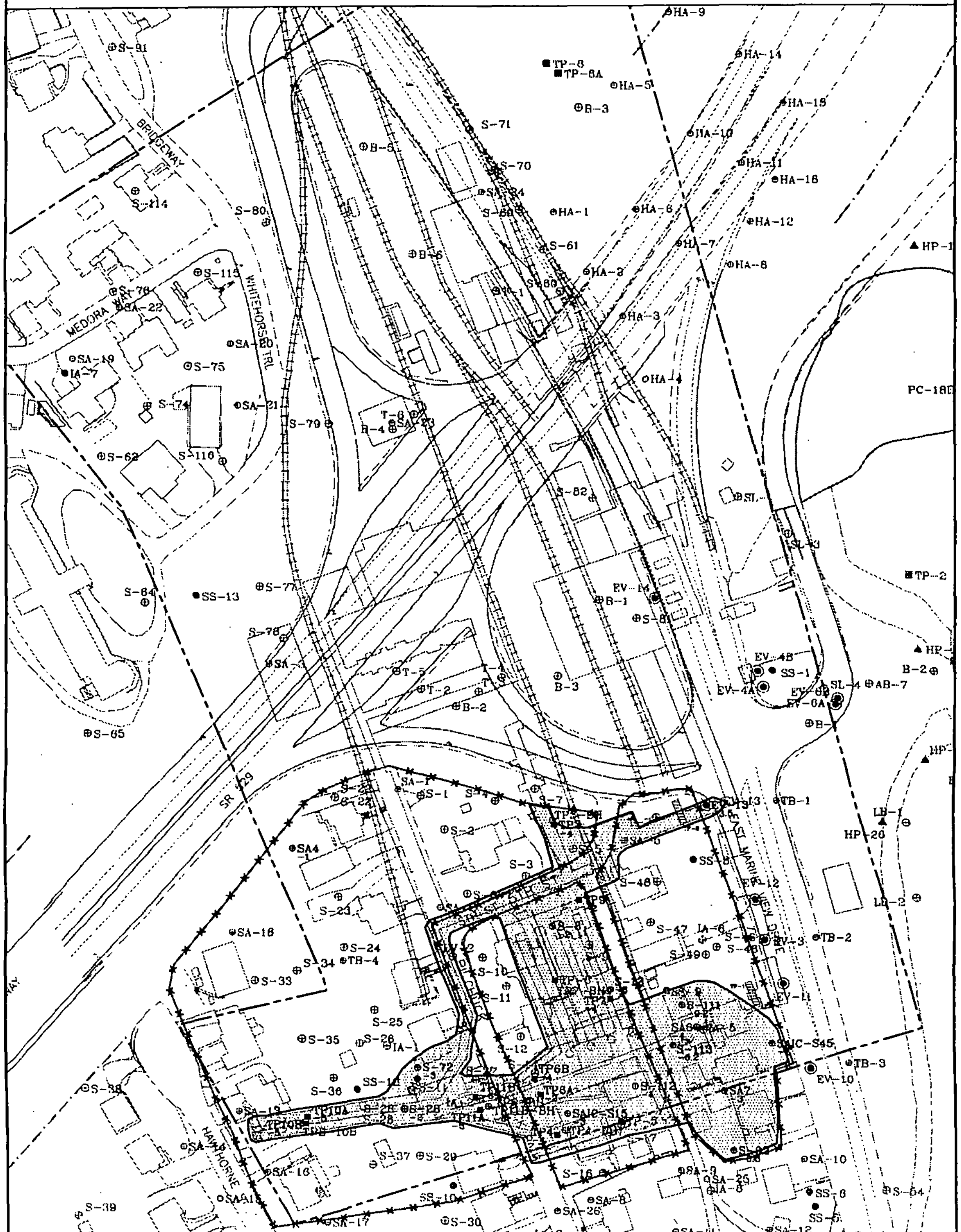
◉ EV-12	SAMPLE LOCATION
⊕ TB-4	SAMPLE LOCATION
■ TP7-4	SAMPLE LOCATION
● SS-12	SAMPLE LOCATION

NORTH

SCALE (In Feet) 0 100

NOTES

SOURCE- EVERETT SMELTER AREA INVESTIGATION REPORT



ASARCO Consulting, Inc.

Figure 3

ESTIMATED EXTENT OF MATERIAL WITH ARSENIC CONCENTRATIONS GREATER THAN 10000 mg/kg

UPDATE TIME: 8am
PG \TAC\112502\ Everett-091902-T034

UPDATE TIME: 8am
PC \VAC\112502\ Everett-091902-TO33

LEGEND

- APPROXIMATE LOCATION OF HISTORICAL SMELTER FOOTPRINT (dashed line)
- SECURITY FENCE (line with x marks)
- ESTIMATED EXTENT OF MATERIAL WITH ARSENIC CONCENTRATIONS GREATER THAN 3000 mg/kg (shaded area)

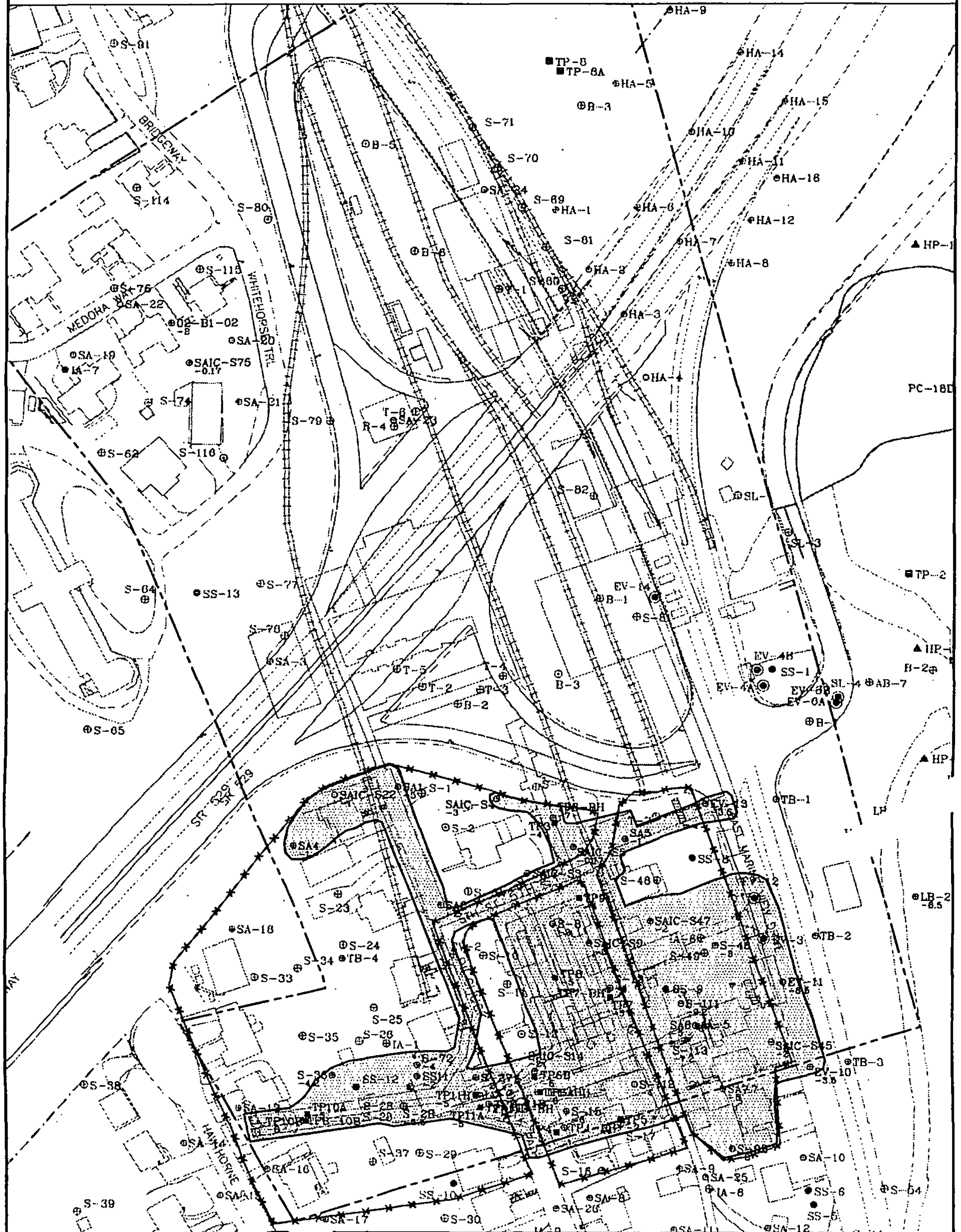
EV-12	SAMPLE LOCATION
TB-4	SAMPLE LOCATION
TP11B -5	SAMPLE LOCATION
SS-12	SAMPLE LOCATION

NORTH

SCALE
0 (in Feet) 100

NOTES

SOURCE– EVERETT SMELTER AREA INVESTIGATION REPORT



ASARCO Consulting, Inc.

Figure 4

ESTIMATED EXTENT OF MATERIAL WITH ARSENIC CONCENTRATIONS GREATER THAN 3000 mg/kg

Appendix A

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

April 22, 2004

Mr. John Iani
Regional Administrator
U.S. Environmental Protection Agency
1200 Sixth Avenue (RA-140)
Seattle, WA 98101

Dear Mr. Iani: John

The purpose of this letter is to request assistance from the Environmental Protection Agency (EPA) to allow us to accomplish an important state cleanup in Everett Washington. As you may be aware, the Department of Ecology (Ecology) has been trying to clean up the Asarco site in Everett for well over a decade. A total of 686 acres has been contaminated with arsenic and lead at levels that pose a direct threat to human health and the environment. We are particularly concerned that this site lies within a residential community comprised of low income housing, and that unacceptable risks are presented to the children of that area.

As provided in a Snohomish County Superior Court Agreed Judgment dated October 20, 2003, and Ecology Enforcement Order No. 02TCPNR-4059 (2002), Asarco is required to remediate all portions of the site that exceed 3,000 ppm arsenic by October 31, 2004. The cleanup plan for the site is for excavation and offsite disposal. Under the 2004 disbursement of the Asarco Environmental Trust, the Everett Site has been allocated $1 million toward the cleanup. This is insufficient to fund the cleanup of the site that is estimated to cost approximately $5,000,000.

Recently the Everett Housing Authority (EHA), Asarco, and Ecology have been negotiating two Prospective Purchaser Agreement Consent Decrees which will facilitate cleanup, purchase, and redevelopment of a significant portion of the site footprint. This transaction will bring needed resources to the cleanup and will pave the way for housing development on the property. However, there is still insufficient funding to cover off-site disposal at a hazardous waste landfill.

The most viable disposal option is for contaminated soil from Everett to be disposed of either in the on-site hazardous waste landfill or under the site-wide cap (depending on concentrations of contaminants and applicable land disposal regulations) at the Asarco Tacoma Smelter. Asarco, Ecology, and EPA personnel have been working together to accomplish this. Both EPA and Ecology have held public meetings to inform the public and have garnered support from the local governments involved.

In order to allow Everett material to be disposed of at the smelter, Section 104(d)(4) of CERCLA may be used. This provision allows two facilities to be treated as one for cleanup purposes, and therefore the material can be appropriately disposed of in Tacoma. To make this happen, the Everett Site would need to be a facility under CERCLA. This can be accomplished through EPA preparing an Action Memorandum covering the disposal. We believe that the risks posed by the site, and the fact that there is no other available funding for cleanup, certainly meet the requirements for a Removal Action.

We request that EPA assist Ecology in accomplishing this important cleanup by doing whatever you can to allow the Everett material to be disposed of at the Tacoma Smelter.

Thank you for your help on this vital matter.

Sincerely,

Linda Hoffman
Director

cc: Kevin Rochlin, Office of Environmental Cleanup, EPA
Elliott Furst, Assistant Attorney General, Ecology Division
David South, Northwest Regional Office, Ecology

CONCURRENCE SHEET FOR:

Request for a Removal Action for Disposal of Excavated Soil from the Everett Smelter Site, Everett, Snohomish County, Washington, at the Tide-flats Superfund Site, Tacoma, Washington

INITIAL	KR	CSR	w for	KR	
NAME	Kevin Rochlin	C. Steiner Riley	E. Kowalski	Dave Croxton	
DATE	5-16-04	5/24/04	5/26/04	5-20-04	